

CHAPTER

3 Contract Administration

Section 5-1.01 of the *Standard Specifications* states that,

“The Engineer shall decide all questions . . . as to the acceptable fulfillment of the contract on the part of the contractor.”

Contract Administration may be defined as the sum total of all those actions required by the Engineer to ensure that the contemplated work is constructed and completed by the Contractor in accordance with all terms of the contract.

These actions will include, but not be limited to: (1) enforcement and interpretation of the plans and specifications, (2) ensuring compliance with applicable Caltrans policies, (3) objective and subjective decisions, 4) sampling, testing and inspection of the work, (5) problem solving, and (6) proper documentation.

It should be pointed out that a well administered contract does not always produce excellent results. Although it is the Contractor's contractual obligation to construct and complete the project in accordance with the contract documents, the best results are generally obtained when the Contractor's attitude is one of cooperation, rather than one which is antagonistic in nature. On current contracts Caltrans will promote the formation of a “Partnering” relationship with the Contractor in order to effectively complete the contract to the benefit of both parties. The purpose of this relationship will be to maintain cooperative communication and mutually resolve conflicts at the lowest possible level.

In order for the Engineer to decide the question of acceptable fulfillment of the contract on the part of the Contractor, i.e., successfully administer the contract, the contemplated work must be thoroughly understood.

A detailed study must be made of the plans and specifications. This would include the Log of Test Borings, which, although attached to the contract plans, is not considered a part of

the contract documents (refer to Section 2-1.03 of the *Standard Specifications*). The Engineer must become completely familiar with the contract plans and their requirements. The order of work and construction sequences must be *thoroughly understood*. A field investigation should be made of the proposed project site and, to the extent possible, the location of all utilities and obstructions should be verified. Note any conflicts or potential problems.

Other documents to be reviewed are:

DOCUMENT	DESCRIPTION
RE Pending File	Contains all the correspondence relative to a particular project and, therefore, provides not only a historical outline of its development, but information relative to existing or proposed utilities, potential problems and any other special considerations.
Preliminary Report	Prepared by the Preliminary Investigations Unit of the Project Management Branch, Office of Program/Project Management and Support. The report is based on information furnished by the District and by data obtained during a field investigation of the proposed site. The report furnishes the Project Designer with the required roadway geometrics, clearances, proposed and existing utilities and/or obstructions, and will discuss any potential problems or other special considerations.
Foundation Report	Prepared by the Office of Structural Foundations and is a part of the Preliminary Report. This report will contain a description of the area geology, a soil profile for selected locations and the Engineering Geologists' recommendations of foundation types. This report is very informative and should be thoroughly reviewed. A foundation review is made by the Project Designer and the Engineering Geologist prior to design

The contract plans and specifications, the aforementioned reports and a field investigation of the site must all be reviewed for compatibility. It is important that all ambiguities, discrepancies and/or omissions be resolved expeditiously so as to avoid unnecessary delays in the work.

It is advisable to meet with the Project Designer and the Engineering Geologist to discuss foundation details (refer to Bridge Construction Memo 130-1.0). If an on-site meeting is impractical, the meeting should be held by telephone. Clarify and resolve any questions or problems regarding foundations and foundation material. *Now* would be the appropriate time to discuss the project with the Bridge Construction Engineer, preferably at the job site.

Once the contract documents have been reviewed and meetings with the Project Designer and Engineering Geologist have been held, the Engineer should have a firm grasp of the contract requirements for the project and the foundation conditions to be encountered at various locations. Special attention should be given to those locations requiring extreme care in performing the work and any remaining problems concerning utilities. These

should be presented at the pre-construction conference(s) to be held with the Contractor and other interested agencies.

Pre-construction conferences are usually held at about the time the Contractor begins mobilizing at the site, but well before work actually starts on the job. Four general subjects are normally covered: (1) safety, (2) labor compliance and affirmative action, (3) utilities, and (4) matters related to the performance of the work itself. Depending on District policy and the complexity of the project, very often more than one meeting is desirable in order to limit the scope and the number of individuals present. From this meeting should come a common understanding of the proposed work and the problems and possible solutions which may be expected during the life of the contract.

The pre-construction conference presents an excellent time to focus on inherent project problems and specifications which could have significant impacts on the Contractor's operations. Since contracts vary and many specifications govern foundation work, it is impossible to list all of the items which might apply. However, the following list covers some of the areas which should be considered:

ITEM	REFERENCE
Test Boring Information	<i>Standard Specifications</i> , Section 2-1.03
Excavation Plans	<i>Standard Specifications</i> , Sections 5-1.02A & 7-1.01E
Differing Site Condition	<i>Standard Specifications</i> , Section 5-1.116
Source of Materials	<i>Standard Specifications</i> , Section 6-1.01
Sound Control Requirements	<i>Standard Specifications</i> , Section 7-1.01I
Water Pollution	<i>Standard Specifications</i> , Section 7-1.01G
Public Safety	<i>Standard Specifications</i> , Section 7-1.09
Preservation of Property	<i>Standard Specifications</i> , Section 7-1.11
Responsibility for Damage	<i>Standard Specifications</i> , Section 7-1.12
Protection of Utilities	<i>Standard Specifications</i> , Section 8-1.10
Cofferdams	<i>Standard Specifications</i> , Section 19-3.03
Foundation Treatment	<i>Standard Specifications</i> , Section 19-3.04
Foundation Inspection	<i>Standard Specifications</i> , Section 19-3.05
Foundation Revisions	<i>Standard Specifications</i> , Sections 19-3.07 & 51-1.03
Piling	<i>Standard Specifications</i> , Section 49
Seal Course	<i>Standard Specifications</i> , Section 51-1.10
Special Concrete Mix Designs	<i>Special Provisions</i>
Applicable Caltrans Policies	Various Manuals
Hazardous Waste Material	—

All utility locations shown on the plans should be verified with the utility representative. The Contractor should notify the proper agencies to have the existing underground utilities located in the field prior to commencing excavation operations. The status of utilities not yet relocated and field evidence of additional utilities must also be discussed. Problems in this area could result in serious delays. Hence, if they are not solved at the pre-construction conference, they should be resolved at the earliest possible time.

The Contractor's proposed methods of performing foundation work adjacent to utilities should also be covered at the pre-construction conference. All present should be advised of any proposed change orders affecting their work or property.

All pre-construction conferences should be well documented. When appropriate, minutes of the meeting should be distributed to all attendees. This serves to confirm positions and/or agreements made at the meeting.

Proposed foundation changes, whether the result of geologic or non-geologic conditions, should be discussed with the Bridge Construction Engineer. Depending on the extent of the proposed change, it may be advisable to consult with the Project Designer and the Engineering Geologist.

Certain revisions in excavation limits, footing elevations and sizes, and revisions to or elimination of seal course concrete are not considered contract changes. Written direction can be given to the Contractor to implement various changes without the immediate need for a change order. However, this situation is limited to instances where only contract items are affected. As most items are final pay items, a change order will ultimately be needed in order to allow the quantity change (refer to Bridge Construction Memo 2-9.0).

In actual practice, change orders are almost always issued to cover footing revisions. Once it is determined that a change is necessary, the Contractor is issued a change order describing the work to be done, the basis of compensation and the extent of any time extension.

To eliminate any possible misunderstanding about field revisions of foundations, a letter should be sent to the Contractor prior to commencing foundation operations, advising of the following (refer to Bridge Construction Memo 2-9.0):

ITEM	REMINDER/STATEMENT
1	A reminder that Section 51-1.03 of the <i>Standard Specifications</i> reserves to the Engineer the right to revise, as may be necessary to secure a satisfactory foundation, the footing size and bottom of footing elevations shown on the plans.
2	On projects involving seal courses, a reminder that Section 51-1.22 of the <i>Standard Specifications</i> allows the Engineer to revise or eliminate seal course shown on the plans.
3	A statement to the effect that final footing elevations and/or the need for seal courses will be determined by the Engineer at the earliest possible time consistent with the progress of the work, and that the Contractor will be notified in writing of the Engineer's decision.
4	Caution the Contractor that work done or materials ordered prior to receiving the Engineer's decision regarding foundations is done at their risk, and that they assume the responsibility for the cost of alterations to such work or materials in the event revisions are required.

For pile-supported foundations, the plans and specifications will almost always specify both a bearing value and a specified tip elevation for driven piles and a tip elevation for non-driven piles.

In accordance with Section 49-1.08 of the *Standard Specifications*, driven piles must penetrate to the specified tip elevation unless otherwise permitted in writing by the Engineer. On those occasions when the required bearing value is obtained at the specified tip elevation, but pile tips penetrate below the specified tip elevation, no additional payment will be made for the additional length of pile below the specified tip elevation unless ordered in writing by the Engineer.

In order to avoid the cost of cutting off piles, the Contractor may elect to drive the pile head to the required cutoff elevation. In these situations, the Contractor should be notified in writing that the cost of additional driving and length of pile are at the Contractor's expense.

Frequently, driven piles must penetrate below the specified tip elevation in order to obtain the required bearing value. In this case, the Contractor will be compensated for the additional length of pile between the specified tip elevation and the tip elevation where bearing was obtained, as determined by the Engineer. Compensation will be at contract item price for furnishing piling.

When this problem occurs and the specified pile type is steel "H" piles, the Engineer should consider using lugs in order to reduce the additional pile length required. When lugs are ordered by the Engineer, the cost of furnishing and welding steel lugs to piles is paid for by extra work at force account or agreed price (refer to Bridge Construction Memo 130-5.0).

On projects involving Cast-In-Drilled-Hole (CIDH) concrete piles, the Contractor should be notified in writing that CIDH piles must penetrate at least to the specified tip elevation shown on the plans or as ordered by the Engineer and that no additional payment will be made for piles that penetrate below the specified or ordered tip elevation. Any ordered change by the Engineer must be in writing.

In accordance with Section 49-4.03 of the *Standard Specifications*, the Contractor has the option to submit a proposal to increase the diameter and revise the tip elevation of CIDH piling. In this instance, the Contractor is paid for the theoretical length of the specified pile to the specified tip elevation.

Bridge Construction Memo 9-1.0 covers As-Built plans as a part of the final records and reports. As-Built plans should provide an accurate portrayal of what was constructed. This information is important when changes are made to the structure after original construction is complete. For example, footing overpours are often not shown on the As-Built plans and become a problem during the construction of footing seismic retrofits. Other problems have resulted from existing shoring and utilities that are moved or left in place. These have added to the cost of projects involving improvements to existing structures.

Currently many contractors are submitting claims regarding Differing Site Conditions. These claims are usually the result of problems with foundation work. Accurate As-Built plans can sometimes help to prevent such claims.

According to Section 5-1.116 of the *Standard Specifications*, timely notification, documentation, and response is of the utmost importance. Each claim for differing site conditions is handled per project or individually. Be familiar with the information discussed in Chapter 1 of this manual and you may be able to avoid such claims. Remember that the Contractor is not the only person who can find differing site conditions.